

ABSTRACT

A resettable circuit interrupting device having a switch and timer circuit connected to the line side of the interrupting device to cause a leakage current to flow for a defined interval of time when power is applied. The timer and switch circuit comprises

5 a timer powered by current from the phase leg of the device which is designed to operate for a defined interval of time. The timer starts operating when power is applied to the circuit interrupting device and normally continues to operate for the defined interval to time. Upon completion of the timed interval, the timer turns itself off and stays off until power is again applied to the device after an interruption. When power is first applied to

10 the interrupting device, the timer is energized from the phase leg and causes the switch to close which connects the neutral leg on the line side of the interrupting device to a ground terminal. If the device is not reverse wired, the timer continues to operate and the switch remains closed until the timer completes its cycle, at which time the switch opens and the neutral leg of the device is no longer connected to the ground terminal. If the device is

15 reverse wired, then at some instant after the switch is closed the device will sense a reverse wired fault, the switches SW1 and SW2 will open, and line power will be disconnected from the interrupting device.